

CANADIAN EDITION: NOVEMBER 1992 VOLUME 9, NO. 11

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A Parent's Nightmare Before Christmas

This seasonal race is intended as a warning to parents and people who can fly the time this time into the future and drawing of sugar plums. They may have seen the latest in new seasonal computer games. And they will love it — you may not.

The badging of this "faster" crop of games is called Doom.

Doom is A Gift That Goes Back
Doom is a capturing. A new release and some reviews, of this new computer game are listed in our office.



From the Editor

The people fall down bleeding and dead. Corpses litter the floor in the 3-D space. The game is competitive for the quality of the graphics that show of themselves through space. It has an amazingly addictive quality to it.

But Doom is not a game of discovery on a single quest. Doom is a kill or be killed shoot-em-up. It is a more realistic. Doom allows only the first-person viewpoint of the protagonist watching the carnage and die they do — in a fashion of blood.

This game is not the only such game. It is just one of the best examples of such games. Other examples include games called Duke, Wolfenstein (which is a German war-themed action game), and Mortal Kombat (in which you get to literally fight your way out of way opponents). The best computer game (which you can find) and the most powerful the computer can handle will have to deal with the issue of controlling an especially robust experience with something that may be exciting to the user in the end world.

INAPC

The first between playing at shooting another person and actually shooting another person. This is called in this game "kill" any before it. It is a warning to make a child in parents can use to be prepared for the worst. A warning to a user once. (Doom is a realistic simulation for me, however. No "Doom" — but in July '93).

Amazing Survival In Death

While I am not advocating the ownership of these types of games, it would seem worth while that people take a good look at what they are doing in their spare time. If we as a society don't want crime in the streets, if we don't want people to seek violent solutions to their problems, what are we doing using games like these? Although it may take the social scientists years to find the link, I believe there is a relationship between these types of games and what people see in the daily violence and what people see in

reality solutions to their problems.

If you have kids or know young people that you care about, take a look at their PC game collection. Is it exciting the value that you would like to see in our society? Ask your kids to consider the alternatives.

A Free Puppit

What makes Doom doubly terrible is the method of its distribution. Doom costs to you to buy. It is a warning — the type of software that developers encourage you to buy before you buy in many ways, it will be downloaded to your machine or passed around on disk or with no money being exchanged.

It is easy to imagine in children that the parents in check-out. It is being refused to you and your kids a free puppy. Unless, really, this dog is a sick puppy.

Our goal is all this is just to become the money game. Just to get you to think about what you and your loved ones might be playing with no more money every day.

On a lighter note — enjoy the game. We hope you will find some great ideas for Christmas gifts to share with your friends and families that will bring some laughter and light to the world. (Doom's parents have all in The Computer Paper).

We also encourage you to participate in our Reader Service on page 65. We want to tell you who you are and what you like to do. Please fill out the questionnaire and you will be entered in a draw to win one of three great prizes: an original notebook, a Lomax's best quality games as a copy of the leading desktop publishing software, Aldus Pagemaker (your choice of Mac or PC). You only get one chance, the money will only be paid in this month's paper. The draw will be held in January.

Doug Allen
Publisher/Editor

Mailbox

Setting Traps

When you're reviewing our current member of the Adobe suite of products, PageMaker 5.0, however, there is one line I would like to clarify as a result of your August '93 article and that is trapping.

Trapping is a complex issue. Traditional trapping has historically been performed by the printer in prepress shops and today with the advent of desktop publishing, designers have had the option to create their own basic traps in their page-layout or illustration

software package.

However, recent surveys in the prepress market have told us that 95-98 percent of traps that designers have created themselves on-screen software applications have needed to be re-trapped by the printer or prepress

house, often at an increased cost to the client.

Designers have told us that they want to trap away from trapping and have that responsibility to their printers. In past issues, service bureaus, and print production departments overwhelmingly concurred and told us if they were to be responsible for the trapping.

Consequently we have a professional trapping product called Adobe TrapMaker that adds capabilities based on dedicated systems. Current page-layout and illustration software programs cannot address all the trapping requirements on a page because of the limitations inherent with Postscript alpha-based trapping. Adobe TrapMaker, which is the most powerful desktop software trapping product on the market today. It is printer, computer, and application independent (able to trap PageMaker, FreeHand, QuarkXPress, Adobe Illustrator) and does it on-screen pages just by pixel and is not screen-based. TrapMaker can trap everything on the page, including registers to registers.

One of the special requirements of prepress professionals: Adobe Corp. now has a prepress division dedicated to meeting that need. Adobe TrapMaker, Adobe PostScript and Adobe PostScript are products that are developed and marketed by our prepress division.

We also recognize that there are designers who will still want to avoid the need to implement their own trapping and that is why we have included basic trapping functions within PageMaker 5.0, such as the ability to design using one-color mode. Others will minimize the need for trapping by an global ink-level overprinting, to selectively overprint PageMaker elements, lines, areas and boxes, and the new Register option which provides accurate and rapid keylinking for traps.

As a final note we are shipping PageMaker 5.0 with over 20 free Adobe add-ons including an add-on called Field Swivel for re-sequencing pages to correspond with printing sequences or for multi-page spreads for more complex page sequences (also we recommend our professional page-sequence tool product, Adobe ProView).

I hope this helps clear up one of the many issues within the publishing market and as always I appreciate The Computer Paper's impartiality and thorough research reviewing competing products.

Ernie Janspeere
Adobe Canada

What About Those Corel Books, RN?

A while ago you did a CD-Rite ad in which a service bureau sponsor was quoted as saying something to the effect of "MAGAZINE CD-ROMS?"

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Garware Bennett replies: ... *ComScan* 4.0's built-in improved document viewer called *ComScanView* lets you. The package now includes a large collection of top-quality PostScript and TrueType fonts from Bitstream and is another 75,000 pieces of high-quality clip art. Microsoft also makes a nice set of fonts of high-quality TrueType fonts from the Microsoft library for both the PC and Mac. *Draw Adobe* is getting into the act with its under \$100 *Font-Packs*. See the *Seinfeld Report* on this issue for more news from the font frontier.

Free And Fair Trade & Moral Issue
Regarding your letter from the editor in the November '93 edition of *The Computer Paper*, I have two points I would like to make. The first is about family lifestyle changes and the second is about our moral responsibilities.

Families are having fewer children. Mothers are going to work while the children are still young. When these children reach the age of employment, they are using the most lower wages, leaving their parents to see their own families at home for only

is it fair for someone to get a fraction of our wages and then compete against you? This becomes a moral question rather than a political or economic one.

a short time. Canada and other industrial nations are feeling the effects of this change. My second point is that the effects of trading into underdeveloped countries takes a toll on employment, as you pointed out.

as your editorial. The question I would like to raise is: Is it fair for someone to get a fraction of our wages and then compete against

Continued on page 11

Debra Aldridge turns 600, and discovers she can do things she's never done before.



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Debra thought she'd done it, and printed it all: better.

That was before she discovered the new HP LaserJet 4P printer with true 600x600 dots per inch microfine toner and Illustration Enhancement technology.

As the owner of a small business, she had seen the big series for Debra in the LaserJet 4P's new feel paperweight which allows her to print her company's

name on trading labels, 3x5 index cards, business cards and postcards. Even her son's logos print wonderfully. The only hard part is choosing which of its 45 built-in typefaces to use next.

The LaserJet 4P's new built-in Windows™ features allow Debra's work to print both faster and exactly as it looks on screen.

(If you work with Adobe's™ popular PostScript™ software, there's the HP LaserJet 4MP for Macintosh.)

Of course, as a business woman, the bottom line for Debra is its surprisingly low price.

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IBM Titles Include Karaoke Macbeth

EDITORIAL: IBM (IBM) - An CD-ROM Dingo, IBM's Multimedia Publishing Studio (IBM) rolled out eight new interactive CD-ROM titles, including a space encyclopedia, two volumes of specialized digital imagery, and writer editions of The Government (Mac, Mac II) and Star Trek.

MPS has been producing multimedia software since 1971 and CD-ROM titles since late 1978, officials said during a news brief

today at the show. But the new market entries are the first to emerge from MPS' new Audio and Label Programs, an effort to attract IBM's training up with third-party developers.

Of the eight new CD-ROM titles produced, three are on Windows as well as later models. They are Star Trek Digital Imagery and Second Issues: Multitasked's Government Mac Star Trek, The Original TV Series Star Trek, The Next Generation.

Two titles — *Planet Backstage* (Apple, Palace Two) and *Planet Backstage* (Apple, Palace Two) — are also new entries on the Mac only. The other two — *Audiovisual Interactive* (The Interactive Space Encyclopedia and *Interactive Planet*) — are currently for DOS only.

"That the ultimate interest is for all eight titles to run on Windows and Macintosh," said MPS officials, a demonstration was subject to IBM.

The two new titles are much more than mere collections of images, suggested Martin Clark, a partner in MPS Product Inc., a company based in Rockaway, N.Y.

Clark said.

The IBM source ranges in each release are supported with these titles that are provided with a wide variety of creative effects — meant to show the graphic possibilities of image manipulation, and Clark, said at the briefing. But the titles are also accompanied by text captions aimed at helping users explore the composition of the material and with audio programs.

The Interactive Planet Encyclopedia also deals with the material and was made interactive, but in this case, the environment is that of a news report.

The disk contains over 1,000 text documents, with interactive elements, along with 2000 photos and 150 3-D animations illustrating scientific concepts and moonwalks, space landings, and other spectacular events, Jonathan Taylor, president of multimedia, Columbia Pictures Interactive explained at the briefing.

After the briefing, journalists viewed Interactive Planet Encyclopedia and Interactive Planet on the collection from a CD-ROM. Interactive Planet Encyclopedia provides access to the new encyclopedia via a main contact in online exploration of data space from a wide range of perspectives, including time lines, maps of the solar system, and scientific data, still images, and animations. The title is presented throughout by Patrick Moore.

Interactive Planet also has Interactive Planet permits users to play the roles of Macbeth, Lady Macbeth, Macbeth, the Witches, and other key characters in the famous Shakespearean drama. Up to 10 users can take part at once, viewing their roles against the roles of professional actors on the disk.

Interactive Planet is complete with audio effects, as well, including starting (opening) and the sounds of the wind in London's Globe Theatre. On the real time graphics and animation are both to be found.

Among the other entry announced titles, the two Star Trek titles and the virtual reality-oriented *Learnmore Mac* all present full motion video clips and screen plays from their space and TV counterparts.

In addition, such comes with a utility that will automatically clip the clips to system events and other computer functions. They might start upon your computer to a clip in which *Spock* announces, "Computing now complete," for example — or deliver a file to the sound of a photon torpedo blast. "It's a quite a way to bring up your desktop," Jonathan Moore said.

Digital imagery, on the other hand, is a volume of space photos by Rick Orloff, an internationally known photographer. But whose credits include many photos for *Space Shuttle* and *Space Shuttle*. The photos were obtained in an eight-year IBM Star Trek series and were by IBM officials.

Also announced by Apple, IBM's system, including internally developed, The *Apple* series and *Adventures of Curious George* and the ABC's will be released within the next two to three weeks. "The other internally developed titles will be out by the end of the year," he added. Curious George and the ABC's could be the first of a series of Curious George titles to be released.

Apple's title under internal development, *Apple's* 3 will take users into the interactive *Apple's* 2 ending point research program for an exploration of the program's technology and basic research results.

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Apple/Media Road Upgrade

Apple is performing the initial upgrade to its (still entering) consumer multimedia subunit environment known as the Apple Media Tool.

In an interview with Newsday, Steve Wozniak, product marketing manager, said that the upcoming Macintosh 128K will bring three new features to the new development tool for user programmers: adding up to greater speed and multimedia functionality for file operation.

First launched in September as one of two components of the Apple Media Tool, the Apple Media Tool is aimed at helping multi-media designers use the Macintosh to create the media in files and Windows files and edit effectively all without help.

Media elements can include QuickTime movies, still images, audio or video sound files and stills or video stills that is defined from (RTT).

If Apple's open architecture opens up the market, could be on the horizon, or in the highly anticipated industry is direct, the project can be used as a tool program and brought into the Apple Media Tool. For example, (continued on p. 16)

Continued from page 14



Produced by Apple, the new Apple ProPaint software will help you create professional-quality graphics.

the image. With Apple ProPaint, it will be the other 3000 Apple owners will be able to produce Macintosh and image programs as up to 24-bit color generated, if needed, they can handle even more than 30,000.

When you want the code — come to the source.

Sourcecode

Sourcecode is a computer program that contains the instructions that tell a computer how to perform a specific task. Sourcecode is the program that tells a computer how to perform a specific task. Sourcecode is the program that tells a computer how to perform a specific task.

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Expert Services will display in Phase II graphics board for the Apple. This card supports 24-bit color up to resolution of 800x600 and 16-bit color up to 1280x1024.

At various times during the show, you can visit showcase, existing new products and technologies.

One of the leading Apple hardware developers, will demonstrate what it calls the premier image processing package for the Apple — ImagePro.

DPF electronics will want to check out AppleLink 120 from Software and the Cal-computer Link System and Mipsco OCS from Seattle, Washington-based Mipsco.

For the AppleLink 120, Mipsco, which has a new 16-bit color screen as well as the AppleLink 120, will be on hand to show Digital ColorLink, new point and selection software, full board.

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AppleLink 120 from Software and the Cal-computer Link System and Mipsco OCS from Seattle, Washington-based Mipsco.

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interface (two batteries are included). The CD-ROM software packages usually in retail over \$4,000 are included as well. The package is available at street prices of around \$499. Other manufacturers have similar products at similar prices.

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and tracing. For graphics and applications, digitizing-tablet users appreciate the portability features of the tablet. The tablet is for Mac systems and a dual lightpen design. Price ranges are available from a \$199 model with pen for \$199 to a \$2,499 model with pen for \$2,499.

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What To Buy?

BY LINDA RICHARDS

Is your mind boggling? Are your senses reeling? And the just before the possibilities? How then to discover what your loved one really wants or — better still — what they don't even know they want — yet, but really can't live without?

If you live with a computer aficionado you're likely already heard some whining. "I wish I had a 14.4. Then I'd be taller." Or, "I'd only I could get an optical scanner. Then I'd get good grades." All you, the gift giver, have to do is figure out what these things are, if they're in budget and you're away!

If the obvious isn't happening, try some of these handy-dandy gift-probing tips. One, or a combination of a few, might just work for you:

1. Make a list. Check it twice. Do an

inventory to figure out what's free and then buy something that isn't. This is not the easy route. The fact is, there may be a remote, a certain something left in the system — like, it's not wanted. Also, if you're not a computer geek and you're buying for someone who is, you might feel like you're a little over your head. Some high-computer types positively get fives when faced with mountains of official-looking gear. But go for it. It holds your nose and pump us. Just lives all the cables where you found them.

2. Ask for a list. It worked for me, after all. The list you get will depend on the nature of your beloved geek as well as their level of expertise. You'll either get very vague requests ("Something to make my video better and faster") or very specific ones ("An

XYZ Super Turbo Macho Video Charger Reader"). Either way, don't be afraid to look for translations. Your neighborhood computer store will likely be happy to read your list and make suggestions in your price range.

3. Sleep with a geo. This method is for cupily blissful computer couples only. Later, carefully during the night for sleep requests. This is a risky method. The variables you make notes of might be for additions that don't yet exist, or things wished for but not yet patented. Be careful if you hear, "I want a Mangosa Component to make my computer fly!" you'll have to move on to Plan B. Computers do many things, but they don't fly — at least the way.

4. Think about things this person would like. Use your thoughts on

their likes and personality, rather than the needs which may be more difficult for you to determine. There are so many non-technical computer peripherals available that there is quite a selection. Things that are fun. Things that are humorous. Things that add to the aesthetics of the computer. Even things that are useful but don't directly attach, like disk holders and drive cleaners, magazine subscriptions and club memberships. It gives little technical knowledge to purchase any of these.

5. Think about things that you'd like. This is my favorite. It's a total win-win. After all, even if your geek isn't nuts about the present, you get to play with it. Actually it might be worse if they do like it. Then you'll get to play with it less. ■

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designing and machine design, you should be prepared to have some good answers as to why the household budget means it's short.

The Incredible Machine said it's fairly breakable. The Fun More Incredible Machine paragonizes twice as many individual pieces played on computers as of this year's "Most Incredibly Inhabitable Game" largely



X-WING
Boulder, Colorado

Considering the popularity of the classic space "Star Wars" role-playing game, it's no wonder when suggesting that it reach next 1990 for a computer game adaptation based on the saga to hit the home shelves.

The wait is over as Gameloft (also who's has produced X-Wing fan entry website) has built into within a 100 two-episode game. The game promises expanded adventures into the "X-Wing Commander" series being the most detailed, it may be a game about the. Offers than more interesting (and well-crafted) dramatic action updating adventures as the last on the success of both campaigns against the Empire, what game-time will be spent on the controls of an X-Wing, or a 3-D shaped fighter.

Since space simulations do not need to gain computerized reality technology space is a star 3D00 shade of black after all. X-Wing can derive most of its efforts in producing reports fully shaded spacecraft models. The package gives building and plans everything they need us for multiple campaigns, tracking simulators, arrivals and positions, as well as spectacular visual effects and sounds. X-Wing is state-of-the-art space combat.



NHL HOCKEY
New York, New York

Justly one of the preeminent for Top Ten considerations is the software quality of a great game. And Electronic Arts' NHL Hockey is awarded in topgo electronic behavior in any sports simulation too.

Actual NHL players and teams with accurate talent levels. The ability to conduct a full season, including playoffs (the best individual players control even all given a hockey simulation), and EA's attention to detail are just some of the reasons behind the success

of this product.

Of even greater importance, you will want every team to meet with NHL Hockey with the feeling that he in the line just been increased in a real hockey game. Which players should be matched up against the other team's best line? Who is currently "on a roll"? Is the opposition going to use a "chip shot" or will he become a "goalie" uncontrolled and controlled by goals to his goal-keeper? What is the most effective offensive strategy when playing the Buffalo Sabres 10 hockey players or "in your face"?

roughly? Needless to say, the very difficulty with necessary link of successfully putting the game into the hands and hearts of both coach and each and every team member has met with successful results in NHL Hockey.

For game ratings of various team strategies and weaknesses and statistics, national statistics, reviews that state with the players and provide proper hand signals, identifying those that may shorten game of play, between-point statistical updates, out of line highlights, and post-game "Three

Star Selections" added to the visual ambience. Meanwhile, credit team forms and post-playing stats, goals, points and (EAGERS) in players' goals and boards meet with great love, a variety of news-related items, and the names of P.A. announcements will greet the team.

Complete team an unbridled thought: each season, and a decision to finish a certain player may well rest on his performance rating, not his total points. At season end trophies will be awarded to the most perform-

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Dolch Shows First Pentium Portables

ALLIANCE, CA 940) — Dolch Computer Systems is selling its new PAC-184 as the world's first Pentium-based portable.

The company was scheduled to show it and a 486-based model at the show in San Francisco, but the Pentium-based machine was the better mobile PC to be available yet, already maintained.

The new PAC and a PAC model offer two full-length open slots, three VESA (Video Electronics Standards Association) local bus slots, and 128 MB of system memory. The platform will also accommodate a combination of three drives, including two 3.5-inch floppy drives, a hard drive up to 1 gigabyte (GB), and a 5.25-inch drive, such as a high performance CD-ROM (Compact Disc Read-Only Memory) in addition to three disk and tapes in an order 10 points.

The 486, in particular, is aimed at performance professionals. The company said that the new model is a really large system with 64MB RAM, 486 (Pentium) and 386 (Pentium) in 100 MHz video card, position and playback in addition to three in the system.

The Pentium-based portables come with a choice of four full panel displays: active matrix color TFT (Thin Film Transistor) panel matrix color dual scan TFT (SuperThin Transistor) monochrome (L) monochrome (color display), or color touch-screen. The

active matrix display shows 256 colors from a palette of 262,000 colors, at 440-by-400 resolution according to Dolch. Contrast ratio exceed 50:1.

A 101-key keyboard is included with the unit. A touchpad system is optionally available for integration into the front panel.

Dolch said that the company's liquid crystal display system is possible to include Pentium and other high-speed CPUs (central processing units) in a relatively small amount of PC real estate.

In contrast to most mobile PCs, which use a plastic inner chassis, Dolch's choice is made of metal, the company explained. Heat is conducted from the CPU through a highly conductive thermally conductive liquid in a proprietary heat sink that in turn conducts the heat into the inner chassis. The metal chassis acts much like a radiator in dissipating heat.

Dolch is now talking orders for both the PAC-184 and the A-PAC, which features one of four to eight mobile video cards at 400 MHz. The PAC-184 is available in 64, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840, 860, 880, 900, 920, 940, 960, 980, 1000, 1020, 1040, 1060, 1080, 1100, 1120, 1140, 1160, 1180, 1200, 1220, 1240, 1260, 1280, 1300, 1320, 1340, 1360, 1380, 1400, 1420, 1440, 1460, 1480, 1500, 1520, 1540, 1560, 1580, 1600, 1620, 1640, 1660, 1680, 1700, 1720, 1740, 1760, 1780, 1800, 1820, 1840, 1860, 1880, 1900, 1920, 1940, 1960, 1980, 2000, 2020, 2040, 2060, 2080, 2100, 2120, 2140, 2160, 2180, 2200, 2220, 2240, 2260, 2280, 2300, 2320, 2340, 2360, 2380, 2400, 2420, 2440, 2460, 2480, 2500, 2520, 2540, 2560, 2580, 2600, 2620, 2640, 2660, 2680, 2700, 2720, 2740, 2760, 2780, 2800, 2820, 2840, 2860, 2880, 2900, 2920, 2940, 2960, 2980, 3000, 3020, 3040, 3060, 3080, 3100, 3120, 3140, 3160, 3180, 3200, 3220, 3240, 3260, 3280, 3300, 3320, 3340, 3360, 3380, 3400, 3420, 3440, 3460, 3480, 3500, 3520, 3540, 3560, 3580, 3600, 3620, 3640, 3660, 3680, 3700, 3720, 3740, 3760, 3780, 3800, 3820, 3840, 3860, 3880, 3900, 3920, 3940, 3960, 3980, 4000, 4020, 4040, 4060, 4080, 4100, 4120, 4140, 4160, 4180, 4200, 4220, 4240, 4260, 4280, 4300, 4320, 4340, 4360, 4380, 4400, 4420, 4440, 4460, 4480, 4500, 4520, 4540, 4560, 4580, 4600, 4620, 4640, 4660, 4680, 4700, 4720, 4740, 4760, 4780, 4800, 4820, 4840, 4860, 4880, 4900, 4920, 4940, 4960, 4980, 5000, 5020, 5040, 5060, 5080, 5100, 5120, 5140, 5160, 5180, 5200, 5220, 5240, 5260, 5280, 5300, 5320, 5340, 5360, 5380, 5400, 5420, 5440, 5460, 5480, 5500, 5520, 5540, 5560, 5580, 5600, 5620, 5640, 5660, 5680, 5700, 5720, 5740, 5760, 5780, 5800, 5820, 5840, 5860, 5880, 5900, 5920, 5940, 5960, 5980, 6000, 6020, 6040, 6060, 6080, 6100, 6120, 6140, 6160, 6180, 6200, 6220, 6240, 6260, 6280, 6300, 6320, 6340, 6360, 6380, 6400, 6420, 6440, 6460, 6480, 6500, 6520, 6540, 6560, 6580, 6600, 6620, 6640, 6660, 6680, 6700, 6720, 6740, 6760, 6780, 6800, 6820, 6840, 6860, 6880, 6900, 6920, 6940, 6960, 6980, 7000, 7020, 7040, 7060, 7080, 7100, 7120, 7140, 7160, 7180, 7200, 7220, 7240, 7260, 7280, 7300, 7320, 7340, 7360, 7380, 7400, 7420, 7440, 7460, 7480, 7500, 7520, 7540, 7560, 7580, 7600, 7620, 7640, 7660, 7680, 7700, 7720, 7740, 7760, 7780, 7800, 7820, 7840, 7860, 7880, 7900, 7920, 7940, 7960, 7980, 8000, 8020, 8040, 8060, 8080, 8100, 8120, 8140, 8160, 8180, 8200, 8220, 8240, 8260, 8280, 8300, 8320, 8340, 8360, 8380, 8400, 8420, 8440, 8460, 8480, 8500, 8520, 8540, 8560, 8580, 8600, 8620, 8640, 8660, 8680, 8700, 8720, 8740, 8760, 8780, 8800, 8820, 8840, 8860, 8880, 8900, 8920, 8940, 8960, 8980, 9000, 9020, 9040, 9060, 9080, 9100, 9120, 9140, 9160, 9180, 9200, 9220, 9240, 9260, 9280, 9300, 9320, 9340, 9360, 9380, 9400, 9420, 9440, 9460, 9480, 9500, 9520, 9540, 9560, 9580, 9600, 9620, 9640, 9660, 9680, 9700, 9720, 9740, 9760, 9780, 9800, 9820, 9840, 9860, 9880, 9900, 9920, 9940, 9960, 9980, 10000.

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New Canadian Telecom Act Here

BY GRANT BUCKLER

OTTAWA (ENR) — Although the new regulatory regime of Canada's Progressive Conservative party could result in an unprecedented electoral landslide, the dedicated government left behind last week's passage of popular telecommunications reform legislation. The new Telecommunications Act came into effect October 25, replacing an 18-year-old law and almost anything a legislated regulatory system.

The bill gave federal jurisdiction over telecommunications to the federal government, although one provision — Saskatchewan — will be allowed to keep provincial regulation for five more years.

In the past, most of Canada's telephone companies were provincially regulated, including those in Ontario, Quebec, British Columbia, and the Northwest Territories were regulated by the federal government. Some provincial phone companies have accepted federal jurisdiction in the past three years, since a 1991 court decision that said the federal government had the right to regulate all telecommunications companies.

'the law acknowledges that we are on the threshold of major telecom transformations'

That decision included companies owned by lower levels of government, but said Ottawa must first assert its authority to act. The new act does that. However, the act gives Saskatchewan — which owns its own phone company and has repeatedly resisted federal jurisdiction — a five-year grace period before it comes under federal control.

Joseph Schmitt, president of the Canadian Telecommunications Association (CTA), a lobby group of major telecom companies, says he expects that provision. "Five more years to start and compete later," but Schmitt said his group is pleased with the law overall, and argues that some companies were necessary.

The Telecommunications Association of Canada (TTAC) also supported the bill. A statement from TTAC said the law "balanced what we see on the threshold of major telecom transformations, and that Canada remains to be a leader in telecom reform globally."

Under the new law, the CRTC can decide not to regulate areas of telecommunications where it judges there is enough competition to serve as an alternative to regulation.

The act also removes regulation on companies that sell telecommunications services through all those that own their own networks continue to be subject to regulation.

The law as introduced in February 1992, would have required all telecommunications services in Canada to obtain licenses from the federal government. It has since been

amended to remove the licensing provision, instead giving the Canadian Radio-television and Telecommunications Commission (CRTC) authority to enforce a rate freezing design freezing of licensed carriers to 20 percent.

Under the Telecommunications Act, licensed carriers have the 20-percent limit on foreign ownership, which effectively shut out foreign investment, since no

licensee would want to pour money into a venture in which it would have a controlling interest. However, the law allows some telecommunications companies will appear.

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REVIEW

Annual Survey of Canadian Payroll Software

BY JOAN HORRALL

Fourteen Canadian payroll programs have been reviewed in this survey. All except Checkmate (Macintosh) were installed and tested using DOS 6 and Microsoft Windows 3.1 on a 486/33 system with a color monitor; all performed well in this environment. Many sample programs will run as well on slower systems using earlier versions of DOS. Canadian payroll software continues to improve; user interfaces are becoming more consistent, and most of the products contain new features and have become more flexible.

ACROPAC PLUS CANADIAN PAYROLL. Two changes have been made in Version 4.0: It provides for a combined total of 32 new defined earnings, taxable benefits, vacations and non-deductible deductions per employee.

Payroll items can be calculated from user-defined formulas and earning types can be grouped for their calculation. Earnings (like thefts) containing standard earnings and deductions provide for fast payroll processing. A General Ledger account can be associated with each earnings code and earnings codes can be assigned to specific T1 lines. A pay period and yearly amounts can be assigned to earnings and non-taxable deductions. Quarterly amounts can be supported. In two new Acropac Plus programs using the new layout (financials function), employees can be assigned to General Ledger department names for departmental costing, or time and payroll burden can be placed in a pile for job costing.

You can choose either to interface with the Acropac Plus financial module or select payroll cost reporting, which will include job-costing information on the time sheets and cost-center reports. You can also allocate earnings to different jobs or departments (company option for KRONOS will not be allocated to a specific job, however). The program automatically calculates the T101 year-of-earning adjustments and notifies the employer needs file.

A new feature of version 5 (which the payroll supplier summary now addresses) employee and employee unemployment insurance contributions by QIC rate. The program also checks the errors in T1 forms before printing the T4s and allows the user to make corrections before printing. Canadian Payroll can be linked to Deparam to access information regarding Criminal Justice records and all departmental information and payroll reports details for all employees included in this current payroll run.

The comprehensive and flexible program is a good choice for businesses requiring complex earning and deduction calculations (personal data and automatic printing in Acropac Plus-General Ledger).

AMBER PREMIER CANADIAN PAYROLL. This is the first year this program has been included in the survey though it has been available for several years. It also borrows its foundation from

Amcor Payroll. It is extremely flexible in its menu-driven to use than simple payroll sys-

Earnings	Deductions	Amount
Basic Pay		1000.00
Shift Pay		0.00
Overtime		0.00
Travel		0.00
Meal Allowance		0.00
Transportation		0.00
Health Insurance		0.00
Life Insurance		0.00
RRSP		0.00
Union Dues		0.00
Charitable Donations		0.00
Other Deductions		0.00
Total Earnings		1000.00
Total Deductions		100.00
Net Pay		900.00

Checkmate Canadian Payroll is a robust command console, not wages, other income, deductions, taxes and net pay for the current month period.

taxes. All earnings and deductions can be calculated from formulas applied by the user. The system does not provide the rates for deductions and other values from the T41 form. The program does job-cost reporting and within computation calculations it does not prepare a format of Employment as available in the specifically for the preparation of this document to important form.

A utility is available which allows you to modify the format of reports applied by the system. You can add or delete text, suppress data elements and apply to more lines within a section. The screen and menu are now almost viable maintenance applications.

CHECKMATE CANADIAN PAYROLL is one of the few products available for the Macintosh.

It is very simple to set up and to use. It provides the benefit formulae and then other income or benefit categories that apply to any of the employees. It allows it has the available earnings to benefit per employee.

There are no non-deductible deductions for any of the employees, and one deductible deduction for each employee. The program makes heavily financial data from one pay period to the next to speed up data entry. It has a departmental (not business) feature that distributes wage amounts to departments or jobs and calculates and distributes the rate

of employee's portion. There is also a feature to report to export employee information to or from a text file. Reporting is adequate but more non-deductible reports would be useful.

CRACKED INSTANT FILE is a new payroll system for small businesses with less than 20 employees.

The program is supposed to be easy to install and to use but I was unable to install the program using the instructions in the manual. Once I figured out how to install it I discovered it requires a telephone call to Toronto between 8 AM and 5 PM Toronto time Monday to Friday to obtain a code valid before the program will work.

The program was very easy to set up and to use. Pay information for each payroll run is entered to each employee and a cheque is printed. The program does not do benefits or Employment.

CRACKED PAYROLL version 4.1 is similar in setup and processing to Instant File.

It also requires a code word before using. It also contains both to track wage period and management data such as hire dates, arrival dates and to print records of Employee and to track employee information by department. Crack payroll is very easy to set up and to use and is thus a very cost

effective system for a small payroll.

CRACKED was not printed this year but last year's edition has been reported.

It is an easy-to-use program in the mid-price range. It handles a good variety of earnings, benefits and deductions or would be good for non-union payroll. Advanced features include on-line cheque reconciliation and a clearing forwards. Both concerning features. Accounting is very comprehensive and flexible. Simple job costing can be obtained using departments. The program interfaces with major Canadian ledger products. The manual is well laid out and very easy to use and is a great help to good.

CRACKED is also one in the survey this year.

It is an inexpensive, simple way to set up and use programs. Its pricing is unique in that it does not charge for the program but for changes, for updates and a copy of the manual. Its history interface is good and it is easy to prepare from this year's data or last year's data. It does not do T41 records of employees reporting so it should only be used by those companies who in prepare them manually.

CRACKMATE is a good choice for large companies with many earnings and deduction types. Companies considering downsizing from mainframe systems, companies with union contracts, and specific requirements.

Crackmate 2.1 with the Windows type user interface has become easy to set up and use while retaining all the items and flexibility available in its predecessor. It provides on-line-deductions earnings and deductions and benefits which are linked. Calculated formulas can be assigned to both earnings and deductions. Crackmate provides a non-deductible main-type table of wages (as such as you would find in a union agreement). The table cell coordinates can be entered in the employee's file. Global changes are entered in the table and all employees (if any) are updated. There are quick-entry buttons for entering forwards with multiple rates of pay rates and account numbers.

A sample company is available and can test systems before it is available in order to get the set up and use of the software. The program provides an extensive cost

Continued on page 31

Payroll

Continued from page 38

breakdown by department and extremely flexible cost-reporting.

The product's special features include the ability to monitor each employee's earnings and deductions with multiple Canada ledger accounts and departments. When an employee's deduction exceeds his earnings, the program will keep track of any excess on a carry-forward basis and will deduct the amount automatically from the next pay cheques issued for direct deposit deduction with bank options. An employer can have more than one bank account.

Canadianair II provides an interface with most General Ledger applications through its import and export features. A report processor is included in the program to enhance the flexibility of reporting. This is the only program in the survey to calculate the general statements and print it on the 74-line paper the reports required for taxation Canada. It is the most comprehensive program we have reviewed for the PC environment.

GRANT PLANS CANADIAN PAYROLL is a powerful, flexible payroll program.

To meet taxable income to the unlimited number of earnings, deductions and taxable benefits which can be calculated, and tracked, it uses the setup of "Employee pay type calculation" where the codes are already predefined and you just have to input them on compared to a status where you have to enter them all and then assign each one to appropriate employees. The

then descriptions and directions for their use were detailed, both in the manual and on the help screen. Recording transactions can be stored instantaneously in any of data such payroll. A second level of comments help is available and can be configured by the user.

We found "High" to be of little assistance when setting up employees. After we set it complete, I searched to use both the Grant's manual and the reference manual to perform the set-up functions. The reference manual is organized in some concise order and is difficult to use. The Grant's manual manual provides detailed directions with the payroll task order for installation and setup functions and detailed operating components for the program. The program creates and sets up an employer's entire payroll history for the year. This report and other audit trails are available.

Grant Plans is excellent for job costing, as it tracks both the employee and the amount by job, separates the company portion of the expense in the job and performs automatic overtime calculations. Grant Plans Version 7 Canadian Payroll will interface with Grant Plans user Payroll program.

HELP CANADIAN PAYROLL is a reasonably priced product that provides a lot of features.

Help does not require an annual fee for two-side updates. The user must update the statutory deduction tables before entering up the payroll. Help can update these tables from either a computer or a network. It includes the step entry and accumulation of daily earnings, any modification of statutory deduction.

Continued on page 38

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Concrete	200	m ³	250	50000	
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Brickwork	1000	m ³	100	100000	
Masonry	1000	m ³	120	120000	
Plaster	1000	m ²	20	20000	
Paint	1000	kg	10	10000	
Roofing	1000	m ²	150	150000	
Foundation	1000	m ³	180	180000	
Structural Steel	10000	kg	15	150000	
Welding	10000	kg	12	120000	
Electrical	1000	m	100	100000	
Plumbing	1000	m	80	80000	
Sanitary	1000	m	60	60000	
Painting	1000	m ²	15	15000	
Roofing	1000	m ²	120	120000	
Foundation	1000	m ³	180	180000	
Structural Steel	10000	kg	15	150000	
Welding	10000	kg	12	120000	
Electrical	1000	m	100		



Payroll Plus's changes dated input.

years has an odd job. There isn't too help available with the program for more.

The manual is complete and easy to use and a good tutorial is provided with the system. Turnings, benefits and deductions are automated and easily non-definable and as a result the program is very powerful but the setup is hard work because no predefined settings or definitions have been supplied. Payroll Controller produces all the reports in formats which require a lot of fiddling at Employees, Tds and a down-loaded file list.



Payroll Plus' TV screen

PAYMATE is available in three versions depending on the number of employees to be paid.

Paymate Plus and **Paymate 20** provide formulas for the calculation of earnings and deductions. **Paymate** is compatible with most popular accounting packages. A price list and manual are available in all versions. With the new pull-down menu, **Paymate** is extremely easy to set up and to use. The system has about 100 ways to use and connect another help is available.

The program also has an online manual, simply press alt M and view the complete manual on the screen. The pay is calculated on the (employee's) entered and can be printed on the screen for more. This product will batch deductions for quick setup and review of payroll records.

Reporting is very simple otherwise with good pay history information. Forwarded information such as benefit plans that defer for salary reviews and increments, and retirement and other information can be added at Paymate 20 and Plus. Job Costing has been added to Paymate Plus. Payroll costs can be marked up to include benefit costs and overhead costs can also be added. **Paymate Plus** is one of the most flexible and easy to use products I have reviewed.

POWERPAY is an easy to use payroll program for a single company.

A multiple company version is also available. The system of four taxable benefits and six deductions can be defined in relation to them entered by the program. Payroll can be calculated individually by employee or by pay-period groups. There is good cost-effective help. There is no provision for entering manual changes or after the fact

pay adjustments to the payroll are limited to adjusting the opening rates of items and deleting and re-entering a pay record. Powerpay does not prepare a forecast of Employment. It does however calculate the workers' compensation liability for each employee entered. The program prints the full-time and produces a T4 summary report.

PAY GAC is available in three versions: a single company version for less than 50 employees, a single company version for

more than 50 employees and a multi-range version.

Employees' bank account numbers can be entered for automatic deposits. A three-tier calculation is available to add or deduct employee themselves using daily starting and ending times. There is an appealing feature available to correct errors found after posting of the payroll and a main change feature is also available to change amounts. The program will track apprenticeship hours, tax exp., benefits and deductions are easy to set

up. Six fields of personal information can be entered in an online-information system. Pay history retention is good and the reporting is flexible. ■

Prepared by Joan Horne BSc, CMA, and Mary Harris of Joan V. Horne & Co. Inc., certified accounting practice serving small businesses in Vancouver. The firm provides consulting and tax services and consulting services in the selection and installation of microcomputer software, reporting and related training and support.

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Seybold Report

BY GRAEME BENNETT

The Seybold San Francisco Conference and Exposition is a mecca for designers, computer graphics enthusiasts, desktop publishers, prepress professionals and information Systems (IS) managers looking to better understand the newest trends in communications technologies.

This year's conference, held at the Moscone Convention Center (right next to the spectacular new Museum of Modern Art), was an event characterized by exciting developments in color, imaging, desktop publishing, multimedia publishing, interactive document distribution, type and output technologies.

The event comprised a series of smaller events and a trade show, where more than 275 of the most important companies in graphics communications showed their wares.

Computer-aided Art

There were also ones of "art galleries" on the show floor, showcasing a wide variety of art in styles ranging from traditional to outlandish. In one particularly art world exhibit called the Interactive Gallery, guests released interactive flying birds that crisscrossed whenever they landed a foot new screen segments at the end of a line, the machine "reads" and instantly begins to follow the character's movements.

Another provocative display featured a conditioned cube in which passersby were encouraged to enter a "word." Inside the cube, a small handle-like effect pulsed and glowed as you stepped in. This device was connected via video to another such cube on the other side of the exhibit. These, another participants were having someone to connect and by your body motions, it brings a whole new meaning to the phone company's slogan "Reach out and touch someone." We can imagine what that technology will lead to.

Another mark featured an Apple-based Macintosh system (from Toronto-based Vireo Video). When designers moved around the room, they "skipped" the system's on-screen screens and produced a video. With the right motion, participants made "better" or "worse" the video. There were several other similarly lively interactive exhibits.

Conference Speakers

This year's conference lineup included speakers with industry leaders and luminaries such as Microsoft CEO Bill Gates, Quark founder Paul Lett, Adobe founder John Warnock, new Apple CEO Michael Spindler, former Adobe CEO (and still chairman) Paul Lettner, US Art and Art Director (and) a few other big names in the computer and publishing field. At what might be considered as the publishing conference of the event, Gates gave his first appearance at Seybold in four years. Instead, Warnock, Lett, and Apple's Spindler "participated in the '95" in a session moderated by journalist Richard Marshall. It was suggested that the PC platform had in fact achieved as a viable platform for desktop publishing, and that in the coming decade, publishing would not necessarily be paper-based as the focus shifts from desktop communications and the reason would be made in a history repeated after the next generation of Power

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FreeHand 4.0 vs. Illustrator 5.0

BY GRAEME BENNETT

If you know a professional designer that uses a Mac, chances are he or she uses either Aldus FreeHand or Adobe Illustrator — many use both. For years, these two products have been locked in a game of one-upmanship while maintaining their faithful adherents along the way.

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Recently, though, it looked as though the tide had turned at last. Illustrator 5.0 kept ahead of FreeHand 4.0 in several key areas, including the previously unexplored area of special effects such as the distortions and skewing-shaping effects so loved by QuarkDraw users on the PC.

For years, FreeHand led Illustrator with its ability to edit drawings in "pantone" mode. Illustrator users, on the other hand, long lamented that Illustrator's speed and outline (EPS) (uncomplicated PostScript) output after all Adobe Incorporated's PostScript language — it's no wonder Illustrator speaks it so fluently.

Typically, all of the key advantages that previously defined FreeHand are now present in Illustrator 5.0: multiple layers, text graphics, fills, pen-in-place editing, non-destructive table support and more. We're big up for Adobe!

FreeHand

In a remarkable example of version-numbering madness, Adobe recently countered Adobe's move with FreeHand 4.0. The new release will please longtime FreeHand buffs, and may sway a few Illustrator users over to the Adobe camp at last.

Although the gap has narrowed, FreeHand 4.0 continues to lead Illustrator in a number of areas — refer to the table below for details.

FreeHand maintains superiority in its support for RGB images (Illustrator requires grayscale and color images to be used at 600 dpi), integrated color separation (Illustrator continues to rely on a separate utility, if you'll pardon the pun).



Illustrator 5.0's new text-handling features include text wrapping and

The new FreeHand also beats Illustrator in text handling — a major weakness for FreeHand, which has been recently criticized in recent years for its lackluster text support. Illustrator, mind you, is no slouch at the text department — it's just that FreeHand's text handling went from "fairly okay" to "incredible" in one great leap.

Ironically, FreeHand's method of linking text boxes resembles that of QuarkDraw more than it does Adobe's "single-point" technique. The program's text handling powers allows multiple-page documents.

Continued on page 43

Freehand vs. Illustrator

[illegible][illegible]

<h2 style="text-align: center;">486SX25Mhz</h2> <h1 style="text-align: center;">\$1395</h1> <p>486DX33 Mhz \$1495</p> <ul style="list-style-type: none"> *INTEL 486 CPU, 25M Cache *4MB Ram Expandable to 16MB *Samsung 10MB HD Hard Drive *1.44M Floppy Drive *Turbo 4x 5700A 386c Module *MS-DOS 5.0 NON-INTEGRATED *Federal Video 320x Up to 1MB *1X, 2X & F/D Controller *1 Serial, 1 Parallel, 1 Game Port *Softkey Mouse Card *233 Watt Power Supply *500 Watt Enhanced Keyboard *602 Compatible Mouse *Microsoft DOS 5.0 Installed <hr/> <p>Militech CD Rom Drive NORTH Atlantic \$239</p> <hr/> <p>Cotecoloro Jumbo 350 200000 Super Disk \$245</p>	<h2 style="text-align: center;">486DX33Mhz</h2> <h1 style="text-align: center;">\$1997</h1> <p>486DX33/66 Mhz \$2299</p> <ul style="list-style-type: none"> *INTEL 486 CPU, 25M Cache *4MB Ram Expandable to 16MB *Maxtor 20MB HD Hard Drive *1.44M Floppy Drive *1.2M Floppy Drive *1X, 2X & F/D Controller *Turbo 4x 5700A 386c Module *LOW SAMPRATE Analog PCB *Cannon Logic 32 Bit Video 1MB *1X, 2X, 4X & F/D Controller *2 Serial, 2 Parallel, 1 Game Port *500 Watt Power Supply *500 Watt Enhanced Keyboard *602 Compatible Mouse *Microsoft DOS 5.0 Installed <hr/> <p>HP Deskjet 500 \$399</p> <hr/> <p>Sound Blaster 16 Basic \$195</p>
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[illegible]

As this writing, there's nothing close to it in the big map software options, though you can't find the new version of Microsoft's Picture Publisher and Atlas Photo-Globe on workbenches.

PhotoShop performs two critical functions exceedingly well. It allows you to adjust contrast and color and fine-tune to your personal taste. And it enables you to create complex three-layered photo images that are like blood of prints and design's lifeblood of these visions. PhotoShop for a competitor's product such as Adobe's is a multi-layer program for the desktop publishing world and of its \$350 (street price).

Scanning Options The Printer's Camera

Now, the desktop publisher will no longer have to scan photos to the printer for corrections to balloons by way of an old-fashioned camera, and stopping into a photo store for photos and corrected color images via one of those processes (eventually in decreasing order of quality). Photo CD (high-end) takes care of that.

A word about Photo CD. It's a private (patented) process. Scanning, saving into high-resolution scans and saving them to compact disc — at a couple price here people are had moaning. Photo CD becomes it runs like these photos. Don't listen to them. Photo CD is in its big brother (Photo CD) this can provide the quality levels required for any publishing project. Setting is following, and your Photo CD output format can provide you with plenty of samples to show your clients.

Accounting & Photo Networking What

No matter how processed an account image is ready to put (print) your CD program. It must be adjusted to ensure the publishing effects of the scanning process and otherwise maintain the photograph may have made. Using this same powerful software and a fast computer with lots of memory.

The software must save out two functions: color and resolution. Common means adjusting brightness and contrast, cropping, color bars, sharpening, blurring, and so on. Resampling takes in the resampling of elements within the photo-graph, ensuring an acceptable resolution point, or acceptable resolution necessary for printing.

With its powerful gamma correction and built-in desktop printer. PhotoShop has an equal to photo correction. It even tells you when you go out the file with sharpening and clipping will result, or when your raster choice is one of gamma (control the range of colors represented by the output device). It shows you a color map to multi-color resolution and the effects on all of them, covered by changes to resolution or a color channel. It lets you work in process (update) type in independently. In short, it replaces the printer's camera half thing.

The right above system for the job

PhotoShop imports images directly from Photo CD and your camera, and offers different levels of adjustment, depending on your experience. You may require training in photo correction to complement the training you'll do (and PhotoShop's excellent documentation). There's a lot in there that doesn't give instructions to train about image manipulation being the domain of a few high prices of printers.

ADVERTISING

Adobe Photoshop 2.5 for Windows

BY JOHN MULVILL

A lot of praise attributed to the Mac's power as a publishing workstation is really due to this program. Like Shakespeare, Photoshop not only has no equal; it has no second.

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Enhanced editor	Y	
Program scheduler	Y	

When you consider all it's got, PC DOS 6.1 from IBM is definitely the one to get.

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The ADP 600 D is a low-cost, entry-level desktop scanner with a two-year unconditional warranty.

Characteristics of Flatbed Scanners

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3. 100 mm. weight and price of Flat Bed, can scan continuous paper
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HP*	\$295(600dpi)**	\$ 450(600dpi)	\$ 325(600dpi)**

** Can only scan 8 1/2" X 11" letter size page, ADP Capacity only 31 sheets for 8 1/2"

Scanners Comparison:

Handheld

- Limited width of image
- Accessibility to lower error
- High defective rate due to rehandling

Sheetfed

- Adjustable
- current scan feed
- density: easy needed

Flatbed

- Not cost effective
- Can scan feed but will detect feeding error

All prices are estimated and are subject to change.

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The Talkin' Listenin' PC

[illegible]

Star Trek has a lot to answer for. Since the famous science-fiction television and film series was first shown in 1966, the public has come to expect that it should be able to control computers by talking to them — and having them talk back.

Even the evil and monstrous FBI compares to Stanley Kubrick's *Eyes* 1961. A Space Colony helped men get used to the idea of a friendly, talking computer.

And now that sound and speech recognition capabilities are finally becoming common to desktop personal computers as second boards and microphones are added to other PCs, the question arises: Do you truly want your PC to listen to you... and learn from you?

When this journal started a few years ago there wasn't a great deal of software to support these user appendages. In recent months however enough new tools have been introduced to the market that users can now do things that I don't get up to, but which are certainly at the edge of the PC and actually using it.

The most popular application for this is "connected and control," whereby numerous devices all communicate.



Totable is a computer just isn't very good at recognizing what people say. There's a hard time with the fact that 20 different people can pronounce the same word 10 different ways. The method around this is to "train" the PC: a neural system to recognize a given voice by building a neural "profile" of the way individual users say their commands.

This is the way the command and control management system in Microsoft's Windows-based system — along with a number of other popular command systems — works. It is the basic protocol, but the three who really want to be able to control their PCs by voice, it is a reasonable "holiness issue" between implicit or strongly implied data entry and full voice command use.

The biggest problem with this application of voice technology is that it requires users to spend far too much time entering the voice recognition system. You have to sit in front of your PC, endlessly repeating all the commands you want it to recognize — write letters, call Mother, take a vacation, etc.

And even when the system has been trained to recognize your voice, it can often be thrown off by background noise. If someone nearby is using the phonoscopes, for instance, or if there is too much noise in the air conditioning, the computer may not be able to hear you.

[illegible]

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Thursday	January 20	11:00 a.m.	12:00 p.m.



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Talkin' PC

Continued from page 51

products and business solutions to meet customer needs.

We also learned that this new software architecture is compatible with existing office devices. "Microsoft At Work is a very practical, pragmatic and evolutionary approach," said Galt. "People can start with today's machines, add one or two new devices based on Microsoft At Work, integrate these into an existing work environment and continue to build from there."

It should be made clear here that Windows is not a Windows — no even a subset of Windows such as Microsoft Windows. It is a multitasking operating system in its own right that will allow Windows Messaging and Telephony APIs (Apple's OpenTalk Protocol Interface) to work at 16MHz and TAPI to exert external control of some of its functions.

True Voice Recognition

Microsoft at Work, however, will only go so far to make voice functions on PCs actually useful and efficient. The key that will make computing, however, is likely to involve complete voice recognition so where you can actually dictate word processed documents to your PC more by word.

In order to actually make this work, it is going to require huge "look-up" dictionaries so that the PC can match up the voice pattern it hears to the word in which it corresponds. There will have to be very much as there are many words that sound so similar but have hugely different meanings to a "word" instead of "word" might be the kind of

ambiguities as it might PC would want. The PC will also have to understand context so that it doesn't use "water" instead of "where" or "height" instead of "how."

Finally, it will also have to be able to understand accents — and this is where it's hard to see how an extensive voice-training component that can be obtained from true voice recognition systems, that it will have to go a lot further than "this guy from Maine and it says in my box." A formal understanding of accents will also require some familiarity with phonetic experiments.

Some highly priced work has been done in this area and limited to narrow, professional voice commands of those including only on systems, this and Microsoft Applied Intelligence. None of these options yet offers complete and totally reliable recognition of accents, speeds but they do suggest that within a few years this should be possible.

Conclusion

It would appear from these trends that the use of voice technology may have started to get under with both speech-recognition and command and control systems. It is decidedly useful to be able to control speech messages by voice documents and it is also quite helpful to be able to talk a limited set of commands securely to your PC through a microphone.

If speech-recognition technology continues to see better competition, but that message don't ride up to much disk space and voice-recognition systems can better engage in their accuracy of recognition, while cutting down on the "training" time of the system, then these two applications may drive voice technology to that extent in the PC market after some time as a double of recognition. ■

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and then the system system is a fairly realistic female or male voice. You can command the computer to "Open the trash folder," or "Reply the Email." If you use the Macintosh to "chat down," the voice will ask you if you want to go back to it. If you reply "No open," or "no," the computer usually takes interest. "Well, sure, okay, then," it answers.

The female voice bears an uncanny resemblance to that of Lili, the android "daughter" of Data on Star Trek: The Next Generation. The optional male voice seems to have a vaguely Californian accent and, like the female voice, wouldn't fool many people into thinking they were talking to a real person.

When you want to add your own speech commands, Apple's implementation runs to some exciting level of detail. There is a folder called "Speechable Items" for simply dragging on items to this folder (or in the Apple Menu if you prefer), you add the file name to the Mac's vocabulary. Using the Mac's ability to have file names up to 30 characters long, you can name files in descriptive ways. After then uttering a new command like "Control Panel," you can train the command to something more descriptive like "Open the Control Panel Folder."

PlanTalk understands the users in motion in all programs, and understands the users in motion in all dialog. There is then an additional set of commands that can be used and to work with mouse pointers to direct users of OS software. Speeches is included so that can easily work around this limitation. The speech recognition works amazingly well — in terms that it had expected it to. At a critical time in The Computer Page, the conversation went like this:

- GB: Computer failed
 ME: Hello, welcome to Macintosh
 GB: Computer, what was it?
 ME: There's a problem
 GB: Computer, open a mail
 [the computer searches our PlanTalk-based system]
 GB: Computer, open mail
 [a list of e-mail messages appears on-screen]
 GB: Computer, open mail
 [the first e-mail message appears]
 GB: Computer, select all
 [the text is highlighted]
 GB: Generate tags
 [the text is copied to the Clipboard]
 GB: Computer, paste
 [the program quits]
 GB: Computer, save Microsoft Word
 [the word processor opens a new document window]
 GB: Computer, paste
 [the copied text is pasted into the document]
 GB: Computer, select all
 [the text is highlighted]
 GB: Computer, 14 points
 [the text font size changes to 14 points]
 GB: Computer, italicize
 [the letters change to italics]
 GB: Computer, Times
 [padding happens]
 GB: Computer, Times
 [the spacing changes to Times-Roman]
 GB: Computer, save
 [The save file dialog appears]
 GB: Computer, paste
 [the first 31 characters of the file are pasted into the document window]
 GB: Computer, delete

[the desktop folder is selected as the current directory]

GB: Computer, copy

[the "OK" button is clicked and the file is copied]

GB: Computer, shut down

Mac: Are you sure you want to shut down?

GB: Computer, yes

Mac: Goodbye!

[the word processor quits and the computer shuts down]

This entire procedure was accomplished without touching the keyboard — at which point I was given a smidgen of approval by the sound of a vibration that had pulsed to zero.

All of this feature comes at a price, however. The speech functions consume vast quantities of memory. For example, an 8 MB Classic 200 running System 7.1 with a total complement of third-party system extensions (Storm I/O, New Outlook, etc.) left the computer with 5,300 KB of available (solid floating

in speech recognition and the female "voice processor" were reduced from 3,600 KB. Switching to the compressed male voice required another 400 KB, while the higher-quality "uncompressed" female voice took a further 1.4 megabytes. By the time I had configured the computer to speak with the compressed male voice, the computer was down to 600 kilobytes of free memory! Clearly, if megabytes of RAM is the bare minimum for an 80 Mhz 20 megabyte or more is a



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bookreview

Artifice Imitating Life

BY KEITH SCHEMGILI-ROBERTS

Title Artificial Life/Pegasus-Intertec & New
Borgware
Author David Huxley
Publisher New York Press
Price \$22.95 Softcover 170 pages
Comes with one 3.5" floppy diskette

This is one of the better books on the "Whole Genome's" Playhouse series of books. "Whole" is a general reference, the real game is not the book but the database that comes with it, which contains a half-dozen interesting artificial-life programs.

The book is good for a simple and well-written introduction to the concept of artificial life, but most of it is devoted to what you can do with the programs contained on the database. The programs include "Life 2000," a Windows version of the classic game of life that originated in the 1950s. "Microbots" allows you to play God and select which computer-generated creature live and die; you use the

effects of computer evolution. Other programs display the effects of predators and prey on a population and how simple rules can generate complex behavior — an example of chaos theory in action.

The text gives the reader only a condensed version of the explanations and implications of artificial life. Obviously interested in further exploring that concepts behind artificial life should check out James Lovelock's *Artificial Life: The Quest for a New Creation*, published by Freeman Books and reviewed earlier this year in *The Computer Pageant*. It is the software that really stands out here, which will convince the user while giving you a feel for where the research in this area is going. With the ingredients in this book, you can get right ahead and tune the evolution of your computer into a precise clock stop. ■

Contact: Clegg Clark Pressen (905) 528-6074

Title Artificial Reality: Digital Metaphors
and Other Virtual Worlds on Your PC
Author David Huxley
Publisher New York Press
Price \$22.95
Comes with one 3.5" floppy disk
with a hard drive program

Following on the success of *The Whole Genome's* virtual last year in *Virtual Reality*, Playhouse returns *Artificial Reality*, which takes you further into the virtual world: your PC can generate. The book is really more a manual on how to use the programs contained on the database that comes with it, which contains the *Metaphors* program along with a library of artificial worlds.

Because this book is so dependent on the program that comes with it, there are some basic system requirements to know about before you even considering buying the book. At a base machine you need at least a 386SX with a VGA monitor. You'll get better performance with a faster processor. If you don't want these system requirements for your computer, don't bother getting the book.

Hardy said that, the *RENTALS* program is a very good virtual reality program to start out with. It comes with its own programming language, and with the text-based and simple mouse code provided in the book you should be able to create your own virtual worlds in next to no time. Installation is easy, and once you get the hang of it, moving through the virtual worlds provided is easy. The book also comes with a brand new mouse designed to help you explore microscopic virtual worlds, providing good depth of field (if not high resolution).

Virtual Reality contains also gives detailed instructions on how to modify *Reps Powerglance* so that you can manipulate virtual objects within the *RENTALS* program. There are three files that can supply you with the a device you can use in virtual reality environments.

If you are really interested in virtual reality, this book program will definitely give you a good start at it. The program is robust enough to let you do a lot of useful thinking, and will definitely leave you wanting more. A perfect book program for would-be virtual-reality hackers. ■

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UNIX IN A NUTSHELL
by Brian W. Kernighan & Dennis M. Ritchie
O'Reilly & Associates

UNIX is a Unix-like operating system, designed to be portable, simple, and easy to use. It is the most widely used operating system in the world. The book covers all aspects of the system, from the kernel to the user interface. It is the most comprehensive reference on the subject, a must-have for all Unix users.

LBNP-0017 Page 0017



NFS AND NIS
by Marshall Kirk McKusick
O'Reilly & Associates

This book describes how to use NFS and NIS to share files and directories between machines. It covers the basics of NFS and NIS, and provides a detailed description of the system. It is the most comprehensive reference on the subject, a must-have for all NFS and NIS users.

LBNP-0017 Page 0017



CONNECTING TO THE INTERNET
by David W. Evans
O'Reilly & Associates

This book provides a comprehensive overview of the Internet, from the basics of networking to the advanced topics of security and privacy. It is the most comprehensive reference on the subject, a must-have for all Internet users.

LBNP-0017 Page 0017



THE WHOLE INTERNET
by David W. Evans
O'Reilly & Associates

This book provides a comprehensive overview of the Internet, from the basics of networking to the advanced topics of security and privacy. It is the most comprehensive reference on the subject, a must-have for all Internet users.

LBNP-0017 Page 0017



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by Marshall Kirk McKusick
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This book provides a comprehensive overview of the sendmail system, from the basics of configuration to the advanced topics of security and privacy. It is the most comprehensive reference on the subject, a must-have for all sendmail users.

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Beginners' Books

Continued from page 64

showing you how to use the program, properly. They are also good as reference guides to programs, useful when you're having a problem you can't figure out.

Both publications are often the first to put out comprehensive guides to particular programs — something before the software is even available to the general public. It's useful before buying one of these guides. The aim is to give you the information needed so the program is not as thoroughly tested as they might be, and they themselves don't make huge that an experienced user.

Contact: *Quick Learning Series*, Penton (Tel: (416) 345-3631)
Systems Startling Series, Puffy Books (Tel: (416) 499-5412)

Can't Get Any Simpler Than This

For people who are simply interested in getting things to happen in the way you want it to do and not having to worry about why the computer does it that way, there's the *Q&A* series of Quick Reference Guides. They consist of the popular software programs currently available including operating systems such as MS-DOS, Windows and Windows 95.

They just run you through the steps (as needed) to do a particular function. That's all. You won't learn the ins-and-outs of the program, but you'll be able to at least get by until you get a better idea of what's going on. Also the price is right — with most titles selling for around \$10.

Contact: *Q&A Quick Reference Guides*, Menck Books (Tel: (416) 468-4688)

Graphical Books

If you prefer a book to show you how things are done, then there are two good series of books to look for. One is the *MiniGraphs* series of books, with lots of color photos of what's going on and computers to help you through. The



books of the most popular software applications and operating systems. The second series here is on the pictures and what you should see on your computer screen. I find that the color pictures sometimes get to be a little bit of a distraction, but they are a great help for people looking for a friendly personal introduction to computers and software. (Menck Graphics books are written in Canada — 64)

Continued on page 68

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TECHNOLOGY

Artificial Hand Uses Neuro Chip

TORONTO (PSE) — NTT has developed an artificial hand which simulates the movement of a human hand. The robot is equipped with NTT's top-of-the-line sensor chips, which is expected to be applied to a virtual reality system or the next Internet.

NTT's artificial hand is called the Cyber Finger and was developed by NTT's Human Interface Laboratory. The sensor chips enable the artificial hand to make reality-based and

strong movements. A user, wearing a wrist band, is connected to the Cyber Finger through an electric cord, and thereby uses the hand facilities.

After "learning" for two minutes, the Cyber Finger was able to move its fingers according to the instructions given by the laboratory researchers.

Contact: NTT -416-594-0100

IBM Canada Aids Educators

MARSHALL, ON (PSE) — IBM Canada Ltd. has announced three more in a long-standing series of cooperative projects with Canadian schools aimed at fostering math and science literacy.

The company has been launching the cooperative program since 1982 and has provided about half million words of products and services to schools under the initiative. In that time, said company spokesmen John Quate.

The latest projects are in Quebec, Ontario and Manitoba.

A partnership with the Continuous Science de Saline Centre (Saline Centre School Board) and the University of Montreal's Faculty of Education will aim to help children in kindergarten through grade six learn scientific principles through activities.

IBM will work with the Dalton's Port Huron Catholic School Board in Ontario in a project focusing on mathematics education in grade six to seven. The program, consisting of teacher training, classroom applications and program evaluations, will use IBM-developed math curriculum software and other ThinkPad network computers.

In Manitoba, IBM is working with the Jervis Area School Division to set up a classroom computer network with curriculum software and compact disc read-only memory (CD-ROM) software at its Port, Park School in Winnipeg.

IBM Canada typically announces deals to buy much product per year, Quate said, and they can be used to share plans.

Contact: IBM Canada 800-465-1234

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OS/2

OS/2 Without Windows?

WHITE PLAINS, NY (PSE) — Gateway at pricing appears to rival Microsoft Corp. offers in providing to launch a version of its OS/2 operating system without built-in code to run applications written for Microsoft's Windows operating environment.

Source said an announcement could be expected by mid-November but an IBM spokeswoman said the company does not comment on commitment, products.

The Windows-like OS/2 would let users run Windows applications provided they already had Windows installed on their PCs. OS/2 would enable users to launch Windows applications without the need to install Windows on their PCs.

This is a practical step largely because many personal computers vendors are

handling their hardware with copies of Windows. That means a fair number of buyers of OS/2 already have Windows on their PCs. By not duplicating the code in OS/2, IBM would not only avoid paying royalties to Microsoft for the use but reduce the size of the OS/2 package and possibly save disk space for users who don't wish the trouble to remove the pre-installed Windows files when they install OS/2.

The company should also be able to pass on to consumers some of what it saves in royalties. That would free buyers of PCs with Windows Standard from paying extra for the code — now in the price of the PC and cost in the price of OS/2.

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REPORT

Canada's High-Tech Marketing Units Shrinking

TORONTO (PH) — Canadian Information Technology companies have been cutting back their marketing operations in the past two years, relying more on network computer sales and on many cases depending on parent companies' work of the kind in the field of their marketing in them. This is a consequence of a study carried out by consulting firm STB's and Maurice Samson & Kellogg and the Information Technology Association of Canada (ITAC).

The researchers contacted 150 of Canada's most prominent information technology firms. The response rate was 28 percent of those of computers.

Only 10 percent of those responding said their marketing departments had shrunk in the past two years. Of those, 28 percent — that is, 0.3 percent of all respondents — said their marketing units were less than half the size they had been two years earlier.

To make up for this, a number of companies are relying more on outside contractors to help with their marketing work. However many are also depending more heavily on the marketing programs of their parent companies in the United States — a decision, the study noted, that most marketing programs are not subject to the Canadian market.

The study noted that the marketing divisions of U.S. parent companies are "more more accessible" than before, particularly a consequence of the Free Trade Agreement in place between Canada and the United States.

In general, the study said, marketers in Canada's high-tech sector are being asked to do more with less. As a result, few Minolta and ITAC, produced a more forward-looking market research such as direct mail and telemarketing, and many firms could show and other general marketing methods.

Source: Paul Messier at 416-597-9224 (PH) 416-598-9224.

STB's Video Card Supports Multiple Displays

TORONTO (PH) 18 (PH) — STB Systems has announced the release of a single-chip NTSC/PAL multimedia video card that supports output to various devices including a standard television set or VCR.

The company says that Channel One is an add-on video card that supports VGA, SVHS and composite NTSC/PAL video signals. It is based on the Cirrus Logic 6426 video controller chip and comes with up to one megabyte (MB) of 60-nanosecond dynamic random access memory (DRAM) video frame-rop. The chip supports up to 16.7 million colors in a resolution of 640 by 480 and is capable of 100 to 200 refreshes.

NTSC (National Television Systems Committee) refers to the U.S. line standard for television signals in the U.S. and Canada. PAL, refers to Phase Alternating Line and is the EBU-line European standard.

STB has added a 300p CMA 345 RGB (red-green-blue) channel in the board to convert VGA signals to NTSC/PAL video formats.

Applications range with a 32-pin connector for Video Connectors 1-15 and a 70-pin connector for 16-bit bus, connector. The board also has a registered Intel port at 1.5MBps.

Circle 48 on Reader Service

Musicware Piano For Windows Debuts

TORONTO (PH) 18 (PH) — Musicware has introduced a Windows-based software program that turns your personal computer into a piano teacher.

A piano teacher.

The company says that "Musicware Piano for Windows" contains piano playing methods with the power and ease of Windows, taking users step by step from the basics to the advanced level of two-hand playing competency.

The program is used in conjunction with a MIDI (Musical Instrument Digital Interface) piano keyboard with two screens to move and a sound card with built-in MIDI support to provide more than 200 piano lessons. Musicware says that's equivalent to thousands of dollars of studio lessons in a traditional teacher-student setting.

Piano for Windows provides instruction in sight-reading, ear-training, rhythm and theory fundamentals. The program includes tests, and a built-in music notation program.

The company says that the package is ideal for serious age seven to adult, for musicians who simply want to brush up on their piano skills. The software, with a suggested retail price of \$59.99 US, comes with all necessary cables.

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FINANCIAL

IBM Loses Less

ALBANY, NY (AP) — IBM has reported a loss of \$48 million in its third quarter, ended Sept. 30, an increase of \$14.7 billion.

This compares to a loss of \$2.4 billion on about the same level of revenues on the third quarter of last year. Last year's third-quarter loss included heavy restructuring charges, before these charges the company had net income of \$14 million in the third quarter.

The company said its hardware revenues fell one percent, just one year, to \$7 billion. Revenues from all other products and services grew 5 percent to 7.8 billion.

Revenues from personal computer sales grew significantly, officials said, while revenues in other hardware categories, including mainframes, mid-range computers, and workstations, declined.

Contact: IBM Canada 800-468-1234

Experimental Macintosh TV In U.S.

CUPERTINO, CALIF. (AP) — Apple Computer has put a television in its Macintosh and will begin marketing for new consumers paid out to consumers. Called Macintosh TV, the product is an experiment on the part of Apple to see which way the consumer video market is heading.

Macintosh TV is similar to the Proforma 4000, the low end of the new Proforma products introduced in October, but includes a compact disc read-only memory (CD-ROM) drive as well as a television card and is being aimed at the U.S. educational market, Apple said. Apple is investigating the product in U.S. consumer retail stores including Best Buy, Target Video Concepts, J&J's and Toys. Through its programs, the higher-priced line compares, and through the Apple Catalog.

Contact: Apple Computer, 400-494-2842, fax 408-514-2886

Weitek Goes For Captain Crunch

PRINCETON, CALIF. (AP) — Moser Weitek says Weitek, known for its graphics acceleration products, has licensed its Captain Crunch video compression technology for use in the

Vision Power processor, which is designed to bring internet-quality digital video to personal computers (PCs).

Mosier Weitek says Captain Crunch can playback video in a 300/750 pixel window in its frame-per-second in compact disc read-only memory (CD-ROM) drive rates of 14.4/14.4 bytes. Like other video compression systems, it is designed to address the problem of getting video down to a size that makes it transportable by currently available media or communication channels.

The company claims Captain Crunch's advantages over competing Motion Picture

Experts Group (MPEG) or Digital Video Interactive (DVI) compression schemes is that it is one-tenth the expense, can compress as well as decompress in real time and is scalable.

Traditionally, the biggest pain point, motion video data-bases using Captain Crunch allows collectively only playback on a 386-based PC in Macintosh file or above of 640x480 resolution of the picture quality. A common problem in recording video on slower computers, Mosier Weitek says, were more choices to play smaller pictures or slower frame rates based on slow data system, per-

formance without intrinsic loss of picture quality. Mosier Weitek points to video conferencing as one of the applications that will benefit most from its compression technology.

Weitek plans to offer the Vision Power chip to third-party board makers in a new 32-bit chip, the Vision 1100. With this set of the Vision Power chip, digital video can run full screen at normal speeds of 30 frames-per-second at resolutions as high as 1280 by 1024. Weitek said.

Contact: Mosier, 408-766-1400

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AMIGA Talk

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THE WORLD OF COMMODORE AMIGA

It's the time of year again! The WORLD OF COMMODORE AMIGA trade show will be making its 15th annual appearance in Toronto, from Friday, December 2nd to Sunday, December 5th at the Toronto International Centre on Airport Road in Mississauga.

More than AMIGA, trade consider the Toronto appearance of the WORLD OF COMMODORE AMIGA as a "homecoming." After more than a half-century of international operations, based in the United States, Commodore's roots are deep in Toronto where it started business in 1974.

The WORLD OF COMMODORE AMIGA also often makes appearances in the United States (New York City and Philadelphia as well as Australia (Sydney). Nevertheless, the Toronto event holds a special place in the hearts of many Canadian AMIGA users, who will regard Commodore as a home-away-from-home.



NEW PRODUCT AT THIS YEAR'S SHOW

Software and hardware developers for the new AMIGA AGA computer (the A4700 and the A4800) has rapidly been gathering momentum during the past year. Exciting new releases and pending releases of products are becoming hard to count the dealer to keep up with. At THE WORLD OF COMMODORE AMIGA, software and hardware product lines of major developers will be on display and it must not be possible to speak to the developers.

In the rapidly moving world of computer technology, obsolescence is always a concern. AMIGA computers are renowned for their upgradeable architecture. Even always, there will be a lot of upgrade options on display and for sale. Apart from memory upgrades to accelerators, there's Workbench 2.1 upgrades to EISA modules (for those AMIGA users who wish to keep WS 1.1 available on their computers). Even hard drive controllers to new video tape backup systems for hard-drives. From graphics to monitors, the list goes on and on.

Of particular interest to many show attendees will be all of the new video boards, offering increased screen resolutions, 24-bit graphics, including volume 24-bit animation playback, real-time AGA resolution.

Needless to say, new software titles will be in abundance. Apart from demonstrations of individual exhibitors' booths, an extensive seminar schedule will feature a number of these titles with in-depth demonstrations of their features and "tricks of the trade".

FREE SEMINARS! DEMONSTRATIONS! SPECIAL EVENTS!

Commodore will of course be showcasing their latest AMIGA line, but without a doubt, a star attraction will be the new AMIGA CD32. In addition to an AMIGA CD32 Arcade, there will be demonstrations and seminar discussions of AMIGA CD32 technology including the full motion capabilities of this newest member of the AMIGA product line.

Other special Show events will feature Macintosh Professional, Digital Imaging and for AMIGA, a Technical Clinic, CD-ROM Technology, Special Effects Animation, Desktop Publishing, and Videography.

Commodore will also be featuring a computer art contest with first prize being the new Puffo Printer Colour Printer. The prize has been set with care to reward "With an original upgrade kit, it can be turned into a 24-bit color dye

ADVERTISING FEATURE

sublimation printer. If you don't win first prize, Puffo Electronics will have a booth at the show and you can always buy one!

VIDEO TOASTER AND AMIGA

To a lot of people, AMIGA and NewTalk's Video Toaster have become almost synonymous. THE WORLD OF COMMODORE AMIGA will have a lot of AMIGA Video Toaster users for product on display and for sale. NewTalk's Canadian distributor, NEM Technology will be demonstrating the new Toaster 4000. Several other companies and developers will also be featuring Toaster specific products.

BRITISH MAGAZINE DISTRIBUTORS

British Magazine Distributors distribute a plethora of AMIGA software and hardware, as well as British AMIGA magazines. While they are the number one source of British Product for Canadian AMIGA dealers, they are also Canadian distributors for a wide variety of quality North American software and hardware. Their local word and international connections are responsible for making a huge assortment of quality AMIGA products affordably available in the Canadian market.

Look for them at the WORLD OF COMMODORE AMIGA, when they will have the largest (next to Commodore, of course) display space under their wing. They have assembled a large group of British developers as well as a number of leading American developers who will all be there to show their product. Space does not permit listing them all, but some well known names include: GVP, Scale, Digital Creative, Expansion Systems and Rozone.

KEYNOTE ADDRESS FROM COMMODORE

One of the most eagerly anticipated events at each year's Show is Commodore's keynote speech. This is where AMIGA users hear about new products in development, anticipated release dates, general discussions of Commodore's corporate planning, and all manner of other information about AMIGA.

Commodore International's Vice-President of Engineering, Mr. Law Eggebrecht, will be delivering this year's keynote address. Mr. Eggebrecht is held in the highest regard by Amiga developers and users. His speeches are informative and quite candid.

"FINAL WRITER" - A SOFTWARE REVIEW

The program of professional writers and even casual users who write high-end features in magazines for the Amiga have been rewarded by the release of Sublimation's "Final Writer." While their other current release "Final Copy" remains an excellent package for most people, the second effort will please even the most discriminating professional.

The program is beautifully conceived and well thought out. The interface has a very user-definable menu-tree at the top of the screen. A wealth of new ideas are also found in the pull-down menus. Three articles/Tables of Contents, Index and Bibliography screens are along with Table of Illustrations and Endnotes. Three formats have previously been lacking as poorly implemented in Amiga wordprocessors. They are the types of a truly mature and full-featured program.

The programmer doesn't compromise between. The program allows the user to define complete "sections" in a document, such as chapters or a book. Also definable by the user are "styles" that can be applied globally to any level of the document. Font and font styles are also user-definable and may be applied by a hot-key. Several of these, the fonts as followed have previously included over 120 high quality fonts built with the program. This generosity continues with the 100 pages of clip-art in EPS format. These features alone are worth the price of admission. Of course Final Writer has the most high quality post script that Final Copy named for.

This program is excellent value for the money and should be immediately popular. Final Writer requires Workbench 2.0 or above, at least 1.5 mb RAM and a hard drive for proper operation. It is fully AGA compatible.

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training Q&A

Of Power Management And PCI

BY ROODY GREEN

Question

What is the difference between a UPS, SP5 and surge suppressor? Which kind of power protection do I need for my computer?

Answer

Manufacturers frequently and irresponsibly tell their SP5 power protection equipment UPSes.

What's the difference?

A surge suppressor protects an outlet. Surge suppressors that protect only your computer may or may not contain only a few (30,000 MOVs) distant Voltage Units. After a couple of good hits (perhaps a year later) the first hit out, offering no further protection. Unlike Surges, UPS's give no obvious indication they have burned out.

Let's qualify suppressors here: you do change filters (which absorb surges) and before which don't burn out. Surge suppressors protect your computer and absorb the surges that might come in to it through and make noise. However, a surge suppressor may do much to handle lack of power either a clean surge, say a lightning low voltage, or full blackout. For that, you need an SP5 or UPS.

An SP5 (Standby Power System) does nothing at all most of the time. When power fails, it quickly cuts in and provides power to those machines. Depending on the size of the battery, you might have about ten minutes to orderly shutdown.

A UPS (Uninterruptible Power System) works all the time. Your computer always runs off batteries, and the UPS continually charges the battery. There is no direct link between the AC mains and your machine. When you get a power failure, nothing changes. You keep running off batteries for as long as you want. You just stop charging them, so a while.

A UPS is usually only a few times more expensive than an SP5 when it has a full-time dry cycle. Why would you want to pay the extra?

The UPS completely isolates you from Mains AC power, not just power failure. It fully protects you from brownouts, spikes and sags and surges. You might see it the example tells you AC power was provided by a third generator.

Granted, an SP5 may have a built-in surge suppressor to handle spikes, and the ability to kick in even for short-term sags, but an UPS provides the rock-solid isolation a UPS does.

Often an expensive though there is one type that is comparatively priced with the SP5s. The PC Power and Cooling Line: source Power Supply is a SP5 which (at about 10% including the battery) fits inside the power supply inside your computer. An external SP5 takes the 12 volt battery power and converts it to 110 volt AC. Then the computer's power supply converts it back again to 12 volt DC. The transient is eliminated. It runs the computer directly off the battery's 12 volts DC like a laptop.

Every laptop that can run off batteries contains a true SP5 inside. This is the often mentioned route to go when you have poor AC power.

What should I use?

I always use a surge suppressor such as the Eutronic (see our previous Q&A) and, if you have problems generally with clean mains, use that alternative but clean power use an SP5. If you have only fair power, the you might find at a third world country, or connected to a third generator, then you need a true UPS.

In poor power situations also consider using a portable computer. A UPS keeps you going for only 15 minutes or so after the blackout. A portable is designed to run low power so might last a third or more. Further you can keep battery packs in a safe through long travels.



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Syndesis 3D-ROM Demos File Conversion

The "Sondex 3D-ROM" is a CD-ROM collection of more than 300 freely distributable 3D models, all present in AutoCAD DXP, 3D Studio, Wavefront, Video Texture, LightWave and Impulse 3 image PC formats. In sum, it's also got more than 400 usable, editable surface maps and includes a fully indexed, cross-referenced catalog of the objects.

The disc includes demonstration models from companies such as Viewpoint Architect Engineering, 3D 78 Viewpoint demo models are present including the jet-engine model ILLUSTRATION 93 set. Many demo objects were contributed by Nauman Kati, Viti Media, Mike Imaging and other commercial modeling companies.

The IPROM is a demonstration of the broadening abilities of InterChange Plus, a flexible system for connecting between 3-D file formats. InterChange Plus connects between AutoCAD 3D, 3D Studio, Digital Art Workbench, Softimage, Sculpt, ViewScan, LightWave, Imagine, Chisel, PACRender and View DEM formats. Soon to come is support for Stereolithography, Microamaths EDG Super 8D Alias Hypermodel, Tegra, Softimage, Intersect and Verigo formats. All material and technology collaboration is provided as far as possible.

The 260-M800 also is fully accessible from MS-DOS Macintosh, Image and Unix workstations.

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TORQUE (SRI) — Mitsubishi Electric has developed an analog neurotissue which it claims operates mathematical calculations at an analog rate of 30 trillion times per second. The company also claims that this speed is more than 1,000 times faster than that of latest supercomputers. — *Source: In fact that any other computer currently in existence.*

Minuteman Electric's latest series model is equipped with 18 sets of proprietary smart I/O chips. These chips have in total 1,800 sets of sensors or smart elements. With these elements, it provides super fast reads.

turn speed as well as the latencies of speed of 50 giga tones (500 billion tones per sec. each).

This new board measures 10.3 x 10 in. The unit can be connected to engineering workstations via a regular line. Micrototal Electric claims it wants to improve the device and release it for more recognition systems and graphic processors within three years.

Contact: Mitsubishi Electric, +61-3-0219 70000
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1. Sample Question

1. Yes Always 2. Yes Sometimes 3. No Sometimes 4. No Never

Who Are You?

1. What is your age?

1. Under 21
2. 21-30
3. 31-40
4. 41-50
5. 51+

2. Are you...

1. Male 2. Female

3. What is your highest level of education?

1. High School 2. Some College
3. Undergraduate and beyond

4. What is your estimated household income?

1. Under \$20,000
2. \$20,000-\$30,000
3. \$30,000-\$40,000
4. \$40,000-\$50,000
5. \$50,000+

5. Are you employed?

1. Yes 2. Unemployed
3. Retired

How do you use a computer?

6. What is your computer's main function? (check all that apply)

1. Word Processing
2. Spreadsheets
3. Database Management
4. Graphics
5. Internet
6. E-mail
7. File Management
8. Other

7. What is your professional title or job function? (check all that apply)

1. Computer Management
2. Computer Support
3. Other

8. What is your computer's main function? (check all that apply)

1. Word Processing
2. Spreadsheets
3. Database Management
4. Graphics
5. Internet
6. E-mail
7. File Management
8. Other

9. What is your computer's main function? (check all that apply)

1. Word Processing
2. Spreadsheets
3. Database Management
4. Graphics
5. Internet
6. E-mail
7. File Management
8. Other

10. Your Department/Division (check all that apply)

1. Accounting
2. Finance
3. Marketing
4. Sales
5. Customer Service
6. Human Resources
7. Information Systems
8. Operations
9. Other

11. What is your company's total gross sales volume in dollars for 1993? (check all that apply)

1. Under \$100,000
2. \$100,000-\$250,000
3. \$250,000-\$500,000
4. \$500,000-\$1,000,000
5. \$1,000,000-\$2,500,000
6. \$2,500,000-\$5,000,000
7. \$5,000,000-\$10,000,000
8. \$10,000,000+

12. How many people are employed full-time at your business? (check all that apply)

1. Under 10
2. 10-25
3. 26-50
4. 51-100
5. 101-250
6. 251-500
7. 501-1,000
8. 1,001+

13. How many computers do you have at home?

1. None 2. One 3. Two 4. Three 5. Four 6. Five 7. Six 8. Seven 9. Eight 10. Nine 11. Ten 12. Eleven 13. Twelve 14. Thirteen 15. Fourteen 16. Fifteen 17. Sixteen 18. Seventeen 19. Eighteen 20. Nineteen 21. Twenty 22. Twenty-one 23. Twenty-two 24. Twenty-three 25. Twenty-four 26. Twenty-five 27. Twenty-six 28. Twenty-seven 29. Twenty-eight 30. Twenty-nine 31. Thirty 32. Thirty-one 33. Thirty-two 34. Thirty-three 35. Thirty-four 36. Thirty-five 37. Thirty-six 38. Thirty-seven 39. Thirty-eight 40. Thirty-nine 41. Forty 42. Forty-one 43. Forty-two 44. Forty-three 45. Forty-four 46. Forty-five 47. Forty-six 48. Forty-seven 49. Forty-eight 50. Forty-nine 51. Fifty 52. Fifty-one 53. Fifty-two 54. Fifty-three 55. Fifty-four 56. Fifty-five 57. Fifty-six 58. Fifty-seven 59. Fifty-eight 60. Fifty-nine 61. Sixty 62. Sixty-one 63. Sixty-two 64. Sixty-three 65. Sixty-four 66. Sixty-five 67. Sixty-six 68. Sixty-seven 69. Sixty-eight 70. Sixty-nine 71. Seventy 72. Seventy-one 73. Seventy-two 74. Seventy-three 75. Seventy-four 76. Seventy-five 77. Seventy-six 78. Seventy-seven 79. Seventy-eight 80. Seventy-nine 81. Eighty 82. Eighty-one 83. Eighty-two 84. Eighty-three 85. Eighty-four 86. Eighty-five 87. Eighty-six 88. Eighty-seven 89. Eighty-eight 90. Eighty-nine 91. Ninety 92. Ninety-one 93. Ninety-two 94. Ninety-three 95. Ninety-four 96. Ninety-five 97. Ninety-six 98. Ninety-seven 99. Ninety-eight 100. Ninety-nine 101. One hundred

14. Describe your home computer

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

15. Describe your business computer

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

16. Describe your computer at work

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

17. Describe your computer at home

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

18. Do you use a computer at work?

1. Yes 2. No

19. Describe your computer at work

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

20. Describe your computer at home

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

21. Describe your computer at work

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

22. Describe your computer at home

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

23. Describe your computer at work

1. Type 2. Model 3. Processor 4. Memory 5. Hard Drive 6. Operating System 7. Other

24. Do you belong to a computer user group?

1. Yes 2. No

25. Do you use an electronic business email system? (check all that apply)

1. Yes 2. No

26. Do you use an electronic business email system? (check all that apply)

1. Yes 2. No

27. What Operating System do you use? (check all that apply)

1. DOS 2. Windows 3. Mac 4. Unix 5. Other 6. Other 7. Other 8. Other 9. Other 10. Other 11. Other 12. Other 13. Other 14. Other 15. Other 16. Other 17. Other 18. Other 19. Other 20. Other 21. Other 22. Other 23. Other 24. Other 25. Other 26. Other 27. Other 28. Other 29. Other 30. Other 31. Other 32. Other 33. Other 34. Other 35. Other 36. Other 37. Other 38. Other 39. Other 40. Other 41. Other 42. Other 43. Other 44. Other 45. Other 46. Other 47. Other 48. Other 49. Other 50. Other 51. Other 52. Other 53. Other 54. Other 55. Other 56. Other 57. Other 58. Other 59. Other 60. Other 61. Other 62. Other 63. Other 64. Other 65. Other 66. Other 67. Other 68. Other 69. Other 70. Other 71. Other 72. Other 73. Other 74. Other 75. Other 76. Other 77. Other 78. Other 79. Other 80. Other 81. Other 82. Other 83. Other 84. Other 85. Other 86. Other 87. Other 88. Other 89. Other 90. Other 91. Other 92. Other 93. Other 94. Other 95. Other 96. Other 97. Other 98. Other 99. Other 100. Other 101. 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Other 1251. Other 1252. Other 125

26. If you visited any of the above computer products, for how many PCs do you have this technology?

- ☐ 1-5 ☐ 16-20
☐ 6-10 ☐ 21-25
☐ 11-15 ☐ 26-30

27. Please indicate the quantities of computer hardware you're planning to discuss. If multiple, please list.

- | | |
|--------------------------------|---|
| Currently
Installed | Planned to
Purchase
for the next
12 months |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 1-10 |
| <input type="checkbox"/> 2-4 | <input type="checkbox"/> 11-20 |
| <input type="checkbox"/> 5-10 | <input type="checkbox"/> 21-30 |
| <input type="checkbox"/> 11-15 | <input type="checkbox"/> 31-40 |
| <input type="checkbox"/> 16-20 | <input type="checkbox"/> 41-50 |
| <input type="checkbox"/> 21-25 | <input type="checkbox"/> 51-60 |
| <input type="checkbox"/> 26-30 | <input type="checkbox"/> 61-70 |
| <input type="checkbox"/> 31-40 | <input type="checkbox"/> 71-80 |
| <input type="checkbox"/> 41-50 | <input type="checkbox"/> 81-90 |
| <input type="checkbox"/> 51-60 | <input type="checkbox"/> 91-100 |

What do you think of us?

28. How many other people saw your copy of The Computer Paper?

- ☐ 1-10 ☐ 11-20
☐ 21-30 ☐ 31-40
☐ 41-50 ☐ 51-60

29. How many of the last 10 editions have you read?

- ☐ 1 ☐ 11-15
☐ 2 ☐ 16-20
☐ 3 ☐ 21-25
☐ 4 ☐ 26-30

30. What other types of local publications do you read regularly?

- ☐ Job, Business ☐ News of the area
☐ News/Info ☐ Other
☐ Business Publications

31. How much time do you spend reading THE COMPUTER PAPER each week?

- ☐ Less than 20 minutes ☐ 31-40 minutes
☐ 21-30 minutes ☐ 41-50 minutes

32. What other computer magazines do you regularly read? (Check all that apply)

- | US-Based Publications | Non-US-Based Publications |
|---|---|
| <input type="checkbox"/> 10/10 Magazine | <input type="checkbox"/> 10/10 Computing Canada |
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| <input type="checkbox"/> 10/10 Windows | <input type="checkbox"/> 10/10 Computer News |
| <input type="checkbox"/> 10/10 Computer Shopper | <input type="checkbox"/> 10/10 Computer Paper |
| <input type="checkbox"/> 10/10 PC World | <input type="checkbox"/> 10/10 The Computer Mail |
| <input type="checkbox"/> 10/10 MacWorld | <input type="checkbox"/> 10/10 Computing World |
| | <input type="checkbox"/> 10/10 Info Canada |
| | <input type="checkbox"/> 10/10 Computer News Canada |
| | <input type="checkbox"/> 10/10 Canada |
| | <input type="checkbox"/> 10/10 Windows |
| | <input type="checkbox"/> 10/10 The Computer Paper |

33. From the above list, which Canadian computer publication do you consider the best?

34. What would you like to read more of in The Computer Paper? (Check all that apply)

- ☐ Hardware ☐ Software ☐ News
☐ Reviews ☐ Tips ☐ News
☐ Interviews ☐ Best Products ☐ Advice
☐ Advertising ☐ News ☐ Other

35. Do you have any other comments on the publication?

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